

| FORM PTO-1449 (Modified) | | Attorney Docket No. 00287S-482 | | Serial No.: 08/709,930 | | |
|--|--------------|-----------------------------------|-------------------------|---------------------------|---------------|------------------------------------|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | Applicant: PHILIP S. GREEN | | | | |
| | | Filing Date: SEPTEMBER 9, 1996 | | Group: 2713 | | |
| Reference Designation | | U.S. PATENT DOCUMENTS | | | | |
| Examiner Initial | Document No. | Date | Name | Class | Sub- class | Filing Date (If Appropriate) |
| AA | 5,209,747 | 05/11/1993 | DENNIS J. KNOEPFLER | 606 | 16 | |
| AB | | | | | | |
| AC | | | | | | |
| AD | | | | | | |
| AE | | | | | | |
| AF | | | | | | |
| AG | | | | | | |
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| AL | | | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | |
| | Document No. | Date | Country | Class | Sub- class | Translation (yes/no) |
| AM | | | | | | |
| AN | | | | | | |
| AO | | | | | | |
| AP | | | | | | |
| AQ | | | | | | |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | |
| AR | | | | | | |
| AS | | | | | | |
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| EXAMINER | L. H. Allen | | DATE CONSIDERED 5/20/98 | | | |

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| FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | Attorney Docket No.: 00287-004820US | Serial No.: 08/709,930 | |
| | | Applicant: PHILIP S. GREEN | | |
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| Reference Designation | | U.S. PATENT DOCUMENTS | | Page 1 of 4 |

| Examiner Initial | Document No. | Date | Name | Class | Sub-class | Filing Date (If Appropriate) |
|------------------|--------------|----------|-----------------|-------|-----------|---------------------------------|
| <u>Mr</u> AA | 1,418,184 | 05/30/22 | Trunick | 279 | 93 | |
| <u>Mr</u> AB | 2,901,258 | 08/25/59 | Brandafi | 279 | 97 | |
| <u>Mr</u> AC | 3,145,333 | 08/18/64 | Pardini et al. | 318 | 45 | |
| <u>Mr</u> AD | 4,113,115 | 09/12/78 | Yoshio | 214 | 18B | |
| <u>Mr</u> AE | 4,260,319 | 04/07/81 | Motoda et al. | 414 | 591 | |
| <u>Mr</u> AF | 4,264,266 | 04/28/81 | Trechsel | 414 | 730 | |
| <u>Mr</u> AG | 4,419,041 | 12/06/83 | Rose | 414 | 739 | |
| <u>Mr</u> AH | 4,562,463 | 12/31/85 | Lipton | 358 | 88 | |
| <u>Mr</u> AI | 4,636,138 | 01/13/87 | Gorman | 414 | 735 | |
| <u>Mr</u> AJ | 4,744,363 | 05/17/88 | Hasson | 128 | 321 | |
| <u>Mr</u> AK | 4,751,925 | 06/21/88 | Tontarra | 128 | 303R | |
| <u>Mr</u> AL | 4,762,455 | 08/09/88 | Coughlan et al. | 414 | 4 | |
| <u>Mr</u> AM | 4,808,898 | 02/28/89 | Pearson | 318 | 568 | |

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| EXAMINER <u>Richard Lee</u> | DATE CONSIDERED <u>5/20/98</u> |
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| Examiner Initial | Document No. | Date | Name | Class | Sub-class | Filing Date (If Appropriate) |
|------------------|--------------|----------|--------------------|-------|-----------|---------------------------------|
| <u>hr</u> BA | 4,873,572 | 10/10/89 | Miyazaki et al. | 358 | 98 | |
| <u>hr</u> BB | 4,947,702 | 08/14/90 | Kato | 74 | 479 | |
| <u>hr</u> BC | 5,002,418 | 03/26/91 | McCown et al. | 403 | 24 | |
| <u>hr</u> BD | 5,020,933 | 06/04/91 | Salvestro et al. | 403 | 90 | |
| <u>hr</u> BE | 5,060,532 | 10/29/91 | Barker | 74 | 479 | |
| <u>hr</u> BF | 5,062,761 | 11/05/91 | Glachet | 414 | 729 | |
| <u>hr</u> BG | 5,078,140 | 01/07/92 | Kwoh | 128 | 653.1 | |
| <u>hr</u> BH | 5,096,236 | 03/17/92 | Thony | 292 | 32 | |
| <u>hr</u> BI | 5,141,519 | 08/25/92 | Smith et al. | 606 | 205 | |
| <u>hr</u> BJ | 5,142,930 | 09/01/92 | Allen et al. | 74 | 469 | |
| <u>hr</u> BK | 5,219,351 | 06/15/93 | Teubner et al. | 606 | 130 | |
| <u>hr</u> BL | 5,236,432 | 08/17/93 | Matsen, III et al. | 606 | 88 | |
| <u>hr</u> BM | 5,253,706 | 10/19/93 | Reid | 166 | 135 | |
| <u>hr</u> BN | 5,257,998 | 11/02/93 | Ota et al. | 606 | 130 | |
| <u>hr</u> BO | 5,260,319 | 11/09/93 | Effland et al. | 514 | 326 | |
| <u>hr</u> BP | 5,264,266 | 11/23/93 | Yokoyama et al. | 428 | 64 | |
| <u>hr</u> BQ | 5,273,039 | 12/28/93 | Fujiwara et al. | 128 | 653.1 | |
| <u>hr</u> BR | 5,279,309 | 01/18/94 | Taylor et al. | 128 | 782 | |
| <u>hr</u> BS | 5,281,220 | 01/25/94 | Blake, III | 606 | 46 | |

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| EXAMINER <u>Robert R. R.</u> | DATE CONSIDERED <u>5/20/98</u> |
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| Examiner Initial | Document No. | Date | Name | Class | Sub-class | Filing Date (If Appropriate) |
|------------------|--------------|----------|----------------|-------|-----------|---------------------------------|
| <u>lu</u> CA | 5,284,130 | 02/08/94 | Ratliff | 128 | 20 | |
| <u>lu</u> CB | 5,325,866 | 07/05/94 | Krzyzanowski | 128 | 251 | |
| <u>lu</u> CC | 5,339,799 | 08/23/94 | Kami et al. | 128 | 4 | |
| <u>lu</u> CD | 5,397,323 | 03/14/95 | Taylor et al. | 606 | 130 | |
| <u>lu</u> CE | 5,425,528 | 06/20/95 | Rains et al. | 251 | 149.1 | |
| <u>lu</u> CF | 5,441,505 | 08/15/95 | Nakamura | 606 | 130 | |
| <u>lu</u> CG | 5,474,566 | 12/12/95 | Alesi et al. | 606 | 139 | |
| <u>lu</u> CH | 5,480,409 | 01/02/96 | Riza | 606 | 205 | |
| <u>lu</u> CI | 5,636,138 | 06/03/97 | Gilbert et al. | 364 | 512 | |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|--------------|----------|-------------|-------|-----------|-------------------------|
| | Document No. | Date | Country | Class | Sub-class | Translation (yes/no) |
| <u>lu</u> CJ | 4 213 426 | 10/29/92 | Germany | | | Abstract |
| <u>lu</u> CK | 482 439 | 01/30/70 | Switzerland | | | No |
| <u>lu</u> CL | WO 92/16141 | 10/01/92 | PCT | | | Yes |

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| | | Filing Date: September 9, 1996 | Group: 2602 2713 |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) Page 4 of 4 | | | |
| <u>LA</u> DA | Asada Haruhiko et al., "Development of a Direct-Drive Arm Using High Torque Brushless Motors," Chapter 7, pp. 583-599. | | |
| <u>LB</u> DB | Guerrouad Aicha et al., "S.M.O.S.: Stereotaxical Microtelemanipulator for Ocular Surgery," <i>IEEE Engineering in Medicine & Biology Society</i> , 11th Annual International Conference, 1989, Medical Applications of Robotics, Track 16: Biorobotics, pp. 879-880. | | |
| <u>LC</u> DC | Kazerooni H., "Design and Analysis of the Statically Balanced Direct-Drive Robot Manipulator," <i>Robotics & Computer-Integrated Manufacturing</i> , 1989, Volume 6, Number 4, pp. 287-293. | | |
| <u>LD</u> DD | Ng. W. S. et al., "Robotic Surgery," <i>IEEE Engineering in Medicine and Biology</i> , March 1993, pp. 120-125. | | |
| <u>LE</u> DE | Taubes Gary, "Surgery in Cyberspace," <i>Discover</i> , December 1994, pp. 85-92. | | |
| <u>LF</u> DF | Taylor Russell H. et al., "A Telerobotic Assistant for Laparoscopic Surgery," <i>Engineering in Medicine and Biology</i> , May-June 1995, pp. 279-288. | | |
| <u>LG</u> DG | Trevelyan James P. et al., "Motion Control for a Sheep Shearing Robot," <i>IEEE Robotics Research Conference</i> , the 1st International Symposium, Carroll, NH, USA, Conference Date: August 25, 1983, Conference No. 05357, Publication by MIT Press, pp. 175-190. | | |
| EXAMINER <u>W. A. Lee</u> | | DATE CONSIDERED <u>5/20/98</u> | |

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| | Filing Date: 09/09/96 | Group: 2713 |

Reference Designation

U.S. PATENT DOCUMENTS

| Examine r Initial | Document No. | Date | Name | Class | Sub- class | Filing Date (if Appropriate) |
|-------------------------|--------------|----------|----------------------|-------|---------------|------------------------------------|
| <u>M</u> AA | 3,818,125 | 06/74 | Butterfield | 178 | 6.5 | |
| <u>M</u> AB | 3,921,445 | 11/75 | Hill et al. | 73 | 133R | |
| <u>M</u> AC | 3,923,166 | 12/02/75 | Fletcher et al. | 901 | 2 | |
| <u>M</u> AD | 3,934,201 | 01/20/76 | Majetski | 901 | 14 | |
| <u>M</u> AE | 4,349,837 | 09/14/82 | Hinds | 358 | 93 | |
| <u>M</u> AF | 4,510,574 | 04/09/85 | Guittet et al. | 901 | 2 | |
| <u>M</u> AG | 4,582,067 | 04/86 | Silberstein | 128 | 663 | |
| <u>M</u> AH | 4,562,463 | 12/85 | Lipton | 358 | 88 | |
| <u>M</u> AI | 4,583,117 | 08/86 | Lipton et al. | 358 | 92 | |
| <u>M</u> AJ | 4,651,201 | 03/17/87 | Schoolman | 358 | 98 | |
| <u>M</u> AK | 4,750,475 | 06/88 | Yoshihashi | 128 | 6 | |
| <u>M</u> AL | 4,837,734 | 06/06/89 | Ichikawa et al. | 901 | 2 | |
| <u>M</u> AM | 4,855,822 | 08/89 | Narendar et al. | 358 | 103 | |
| <u>M</u> AN | 4,862,873 | 09/89 | Yajima et al. | 128 | 6 | |
| <u>M</u> AO | 4,899,730 | 02/13/90 | Stennert et al. | 128 | 4 | |
| <u>M</u> AP | 4,922,338 | 05/01/90 | Arpino | 358 | 93 | |
| <u>M</u> AQ | 4,941,106 | 07/90 | Krieger | 364 | 513 | |
| <u>M</u> AR | 4,942,539 | 07/90 | McGee et al. | 364 | 513 | |
| <u>M</u> AS | 3,463,329 | 05/67 | Gartner | 214 | 1 | |
| <u>M</u> AT | 2,815,697 | 12/57 | A.E. Saunders-Singer | 88 | 40 | |
| <u>M</u> AU | 5,045,936 | 09/03/91 | Lobb et al. | 358 | 98 | |

FOREIGN PATENT DOCUMENTS

| | Document No. | Date | Country | Class | Sub- class | Translation (yes/no) |
|-------------|--------------|-------|---------|-------|---------------|-------------------------|
| <u>M</u> AV | 3806190 | 09/88 | Germany | H04N | 13/02 | No |
| <u>M</u> AW | 2040134 | 08/80 | UK | H4F | | |
| <u>M</u> AX | 0 595 291 A1 | 10/93 | Europe | B25J | 9/10 | |
| <u>M</u> AY | 0 239 409 A1 | 03/87 | Europe | A61F | 9/00 | |
| <u>M</u> AZ | 86 00852 | 01/86 | France | B25J | 11/00 | |
| <u>M</u> BA | 2 460 762 | 01/79 | France | B25J | 3/02 | |
| <u>M</u> BB | 28 19 976 | 05/78 | Germany | F16M | 1/00 | |
| <u>M</u> BC | 0 291 292 A2 | 05/88 | Europe | F16H | 21/44 | |
| <u>M</u> BD | 2117732 | 10/83 | UK | B25J | 9/00 | |

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| <u>SR</u> BE | 2 593 106 | 07/87 | France | B25J | 11/00 |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | |
| <u>BF</u> | A.D. Alexander, III, "Impacts of Telemation on Modern Society", *, <u>1st CISM-IFTO MM SYMPOSIUM</u> , Vol. 2, pp. 122-136. | | | | |
| <u>BG</u> | A.K. Bejczy et al, "Controlling Remote Manipulators Through Kinesthetic Coupling", 1983, <u>Computers in Mechanical Engineering</u> , pp. 48-60. | | | | |
| <u>BH</u> | Fisher et al., "Virtual Interface Environment", 1986, <u>Proceedings IEEE/AIAA 7th Digital Avionics Systems Conference</u> , pp. 346-350. | | | | |
| <u>BI</u> | Hald et al., "Telepresence, Time Delay and Adaptation", *, <u>Spatial Displays and Spatial Instruments Proceedings of a Conference sponsored by NASA Ames Research Center and the School of Optometry, Univ. of California</u> , pp. 28-1 through 28-16. | | | | |
| <u>BJ</u> | Kim et al., "A Helmet Mounted Display for Telerobotics", 1988, <u>33 IEEE Computer Society International Conference, California</u> , pp. 543-547. | | | | |
| <u>BK</u> | B. M. Jau, "Anthropomorphic Remoter Manipulator", 1991, <u>NASA Tech Briefs</u> , pg. 92. | | | | |
| <u>BL</u> | K. Matsushima, "Servo Micro Manipulator Tiny Micro Mark-1", 1982, <u>4th Symposium on Theory and Practice of Robots and Manipulators</u> , pp. 193-201. | | | | |
| <u>BM</u> | R. Richter, "Telesurgery may Bridge Future Gaps", 1988, <u>Times Tribune</u> , Sunday, January 24, pp. A-1 and A-16. | | | | |
| <u>BN</u> | E. H. Spain, "Stereo Advantage for a Peg-In-Hole Task Using Force-Feedback Manipulator", 1990, <u>Stereoscopic Displays and Applications</u> , pp. 244-254. | | | | |
| <u>BO</u> | Tachi et al., "Tele-existence Master Slave System for Remote Manipulation", 1990, <u>Proceedings of the 29th Conference on Decision and Control</u> , Vol. 1 of 6, pp. 85-90. | | | | |
| <u>BP</u> | "Introduction t a New Project for The National Research Development Program (Large-Scale Project) in FY 1991 - Micromachine Technology", 1991, <u>Agency of Industrial Science and Technology Ministry of International Trade and Industry, Japan</u> , pp. 1-11. | | | | |
| <u>BQ</u> | "Another Pair of Hands for Surgeon?" 1972, <u>The Blue Cross magazine Perspective</u> , pg. 27. | | | | |

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